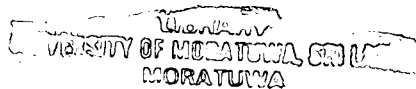


IMPACT OF DOCUMENTED PROCEDURES ON PROJECT MANAGEMENT MATURITY

By

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Thesis Submitted to the Department of Civil Engineering of
the University of Moratuwa in Partial Fulfillment of the
Requirement for the Degree of Master of Science

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DEDICATION

To the most valued people in my life: **my father** and **my mother**, for their continuous perseverance and encouragement for all the endeavors towards my advancement.



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DECLARATION

This thesis is a report on the research work carried out in the Department of Civil Engineering, University of Moratuwa, Sri Lanka, during January 2002 to March 2003. This submission is original and does not have any materials previously published or written by any others any where, except where citing is made.

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ABSTRACT

Construction contracts are essentially carried out as projects. In project situation, improvement of work practices can take place in two ways: within a project and from one project to another. As repetitive work is very much less in construction contracts compared to manufacturing environment, most significant improvements of quality usually take place on project-to-project basis. Documentation and documented procedures can play a major role in such a situation. Documented procedures establish the current practices or the baseline for continual improvement; documentation enables recording lessons from projects that are success as well as failures. The improvement of work practices in this manner is known to increase the project management maturity of a contractor organization. The level of project management maturity usually assesses an organization's current project management practices and processes and its ability to achieve project objectives in terms of quality, cost and time.

This report presents a comparative study on the usage of project management practices in construction contracts and the relationship between documented procedures and the project management maturity. The objectives of the study were (a) to identify the areas which have a greater need for documented procedures; (b) to assess the usage of project management practices in construction contracts; (c) to assess the level of project management maturity of construction organizations; and (d) to establish the relationship between documented procedures and project management maturity.

Questionnaire surveys were used to collect necessary data from the construction professionals and different construction organizations. The results of the first survey suggest that construction companies can benefit significantly by implementing documented procedures in the areas of all quality elements of ISO 9000, health and safety and risk management. The second survey was carried out to assess the level of project management maturity achieved by implementing a set of documented procedures and project management tools and techniques and practices. The results of this survey show that project management maturity is significantly high for construction companies in certain knowledge areas such as time management, cost management and procurement management; whereas it is comparatively low with respect to the management of risk, communication and quality of projects. Further, the results suggest that there is a positive relationship between the implementation of documented procedures and the level of project management maturity among contractor organizations. Also the implementation of documented procedures could improve their project management maturity and ability to achieve customer satisfaction.

Further, personal interviews were conducted to verify the findings of the questionnaire survey. Findings & conclusions from this study could be useful for the contractor organizations to identify strategies to increase their PM maturity and thereby to improve their potential to meet stakeholder requirements and successful completion of projects undertaken by them.

Keywords: Construction projects/contracts, documented procedures, continual improvement, project management maturity.

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